

REMARKS

I. Status Of The Claims:

Claims 1-94 are pending in the application.

Claims 34, 47, 84, and 91 are objected to.

Claims 1, 2, 4, 11, 12, 14, 21-23, 25, 35, 36, 38, 48-54, 56, 64-69, 71, 79, 80-83, 85-90, and 92-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall (U.S. Patent No. 5,703,623) in view of Marsh (U.S. Patent No. 5,999,167).

Claims 3, 5-10, 13, 15-20, 24, 26-33, 37, 39-46, 55, 57-63, 70, and 72-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall in view of Marsh, and further in view of Isoguchi (U.S. Patent No. 5,146,353).

With this response, claims 84 and 91 are canceled, and claims 1, 11, 21, 22, 35, 48, 49, 64, 79, 80, 87, and 94 are amended.

II. Rejections Under 35 U.S.C. 103(a)

Claims 80 and 87 are amended herewith to include the feature of claims 84 and 91, respectively, as suggested by the Examiner. For at least this reason, claims 80 and 87 are thought to be in condition for allowance. Claim 94 is similarly amended, and is thought to be in condition for allowance for at least the same reason.

The claimed invention is directed to a coordinate input apparatus for inputting a three-dimensional position in three-dimensional coordinates. This coordinate input apparatus receives light emitted by a light emission unit of a designation device by a plurality of sensors, calculates and determines an **absolute** three-dimensional position of the light emission unit with regard to the coordinate input apparatus based on a value obtained by the plurality of sensors.

According to the claimed invention, since the three-dimensional position where the designation device exists with regard to the coordinate input apparatus is calculated based on a position relationship between a position of the designation device and a position of the coordinate input device, an **absolute three-dimensional position** of the designation device with regard to the coordinate input apparatus is obtained precisely.

Hall discloses that a hand held cursor control device senses changes to its own position and orientation by detecting six degrees of freedom (X, Y, Z, yaw, pitch and roll) in three dimensions of the hand held control device. The sensed information to be transmitted to the external device is a **relative** moving amount and direction of the hand held cursor control device, rather than an **absolute** moving amount and direction of the hand held cursor control device with regard to an external device.

Thus, the arrangement of Hall merely emulates the operation of a mouse with the hand held cursor control device. Hall does not calculate an **absolute** three-dimensional position of the hand held cursor control device with regard to the external device as in the claimed invention.

Marsh relates to a technique of a wireless mouse. In Marsh, a base unit coupled to a television provides ultrasound to the mouse, the mouse receives the ultrasound by a ultrasound receiver, and the base unit calculates relative angle, moving direction and amount of the mouse by obtaining reception condition of the ultrasound receiver.

Therefore, both Hall and Marsh merely disclose a technique of coordinate input in a relative coordinate system, instead of an **absolute coordinate device**. These references do not disclose, teach, or suggest the feature of the claimed invention.

In view of at least the foregoing, the Applicant respectfully submits that the claims, at least as amended herewith, are in condition for allowance.

CONCLUSION


Based on the foregoing remarks, the Applicant respectfully requests reconsideration and allowance of this application. If the Examiner has any questions, he is invited to telephone the Applicant's counsel at the telephone number given below.

In the event any fees are necessitated by this response, the Commissioner is hereby authorized to charge our deposit account no. 13-4500, order no. 1232-4573.

Respectfully submitted,

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Dated: May 5th, 2003

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